
XXVIII. *Descriptions of five new British Species of Carex.* By James Edward Smith, M.D. F.R.S. P.L.S.

Read December 3, 1799.

AFTER so copious a harvest of British Carices as that with which my learned friend Dr. Goodenough has enriched the second and third volumes of our Transactions, no great acquisitions of the same kind are to be expected. The gleanings only of this ample and well-cultivated field, so lately an impenetrable wilderness, have fallen to my lot; and though but about the tithe of the crop, I have spared no pains to collect and methodize them. The value of such discoveries increases in proportion to what we have already obtained; and I am very well aware how much I am indebted, for their perspicuity and certainty, to the clue my predecessor had left me.

In labouring at the genus *Carex* for the Flora Britannica, I have, as in every other instance, examined the subject throughout, without taking any thing for granted; but in no tribe of equal intricacy have I found so little at present to correct. What I am now about to offer is chiefly the description of 5 species, in addition to the 47 described by Dr. Goodenough. For the discovery of these I am entirely obliged to the friends whose names will hereafter appear. I have only to answer for the specific determination of 4 of them. Of the preceding 47 species the *Carex axillaris* only has not come so completely under my examination as I could have wished, though

though I have found no reason to doubt its being sufficiently different from all others. *C. fulva* appears, notwithstanding Dr. Goodenough's correction, *Transf. of Linn. Soc. v. 3. 77*, to be very distinct from *flava*, having longer vaginæ (which however are shorter than the flower-stalks), oval spikes, the fruits erect, not recurved, and a rough stem. Its habit too differs, approaching towards that of *C. distans*; but its glumes being perfectly awnless, keep it from being confounded with any variety of the last-mentioned. In my arrangement of the species I have taken the liberty of making some alterations, disposing them according to their natural affinities, rather than their technical characters. In the generic character I have adopted an alteration lately suggested to me by Dr. Goodenough himself, calling the permanent husk that invests the seed an *arillus*, a name which I cannot help thinking expresses its true nature much better than the hypothetical one of *nectarium*, the erroneous one of *capsula*, or even the analogical denomination of *corolla*. The generic character will therefore stand as follows :

Masc. *Amentum* imbricatum. *Cal.* gluma univalvis. *Cor.* nulla.
 Fœm. *Ament.* imbricatum. *Cal.* gluma univalvis. *Cor.* nulla.
Stigmata 2 vel 3. *Semen* arillo ventricoso tectum.

My new species belong to the first, third, and fourth sections of the genus.

* *Spicâ unicâ simplici.*

I. CAREX *Davalliana.*

Prickly separate-headed Carex.

C. spicâ simplici dioicâ, fructibus lanceolato-triquetris nervosis patenti-deflexis: angulis apice scabris.

Carex dioica. *Wilden. Car. Berol.* 16, ex descr.

C. n. 1350. *Hall. Hist. v. 2.* 182.

Gramen cyperoides, *spicâ simplici cassâ.* *Scheuchz. Agr.* 497. t. II. f. 9, 10; synonymis omninò erroneis.

In uliginosis. Fl. Maio, Junio.

Discovered in marshy ground in Mearns-shire, North Britain, by Professor James Beattie jun. of Aberdeen.

Radix fibrosa, cæspitosa. *Culmi* simplicissimi, triquetri, scabriusculi, quandoque scaberrimi, monostachyi, basi foliosi, parùm altiores quam in *C. dioicâ* verâ. *Folia* setacea, triquetra, culmo triplò breviora. *Spicæ* dioicæ, lineares, erectæ, multifloræ, vix unciales, glumis fuscis, carinatis, acutis, margine scariosis. *Stamina* capillaria, exserta, antheris flavis, linearibus. *Fructus* lanceolato-triquetri, nec gibbi, rostrati, undique nervosi, angulis apice scabris, ore scariofo, integro, demùm deflexo-patentes, acuminati, unde *spicæ* feminiferæ squarrosæ fiunt.

Specimens of this *Carex* were sent to me from Switzerland, as well as to Dr. Goodenough, (see his postscript at the end of our 2d volume,) by my much lamented friend the late Mr. Davall, who

discovered it to be different from the Linnæan *dioica*, to which the synonym of Scheuchzer is referred in the *Species Plantarum*. Linnæus, however, has erased this quotation from his own copy of that work. Mr. Davall has assured me this plant is very common in almost every damp spot about Orbe; whereas he had met with the *dioica* only in one peat bog. I have no doubt of its being what Haller intended under his n. 1350; it agrees exactly with his description, though he has confounded under it synonyms of *dioica* and *pulicaris* at least, if of no more species. It appears to be the *dioica* described by Professor Willdenow in his recent treatise on the Carices found about Berlin, printed in the Transactions of the Academy of that place. Scheuchzer erroneously applied to it synonyms of Ray which belong to *C. pulicaris*, and has by that means been the cause of subsequent mistakes. Mr. Davall having first elucidated the subject, I have consecrated the specific name to his memory.

No one had suspected this to be a British plant till I received a specimen this autumn from Professor Beattie of Aberdeen, under the name of *dioica*, along with a rich assemblage of great part of the whole genus.

C. Davalliana is readily and essentially distinguished from *C. dioica* by the fruit being of a triangular-lanceolate, not ovate, form, reflexed, not erect, and also much more strongly nerved. No one who has examined both can ever confound them. *C. pulicaris* is distinguished by being always androgynous, and having fruit altogether without nerves, lanceolate, and pointed at each end.

*** *Spicis sexu distinctis: masculâ unicâ, rariùs geminâ: bracteis foliaceis et plerumque vaginantibus.*

2. CAREX *binervis.*

Green-ribbed Carex.

C. vaginis elongatis pedunculo brevioribus, spicis cylindricis remotis subcompositis, glumis mucronulatis, fructibus binerviis.

Carex distans. *Lightf.* 561, ex descr.

In ericetis ficcioribus. Fl. Junio.

Very common on the driest moors about Aberdeen. *Prof. Beattie.*
Near Edinburgh. *Mr. J. Mackay.*

Radix fibrosa. *Culmus* erectus, firmus, sesquipedalis, bipedalis, vel tripedalis, obtusè triquetèr, lævis, apicem versùs hinc scaber. *Folia* erecta, latiuscula, acuminata, glaucescentia, marginibus carinâque aspera. *Bractea* foliis simillimâ, elongatâ, erectâ, longiùs vaginata, remotâ. *Spica* mascula utrinque attenuata, sæpè sesquiuncialis, multiflora, glumis densissimè imbricatis, ellipticis, obtusis, submucronulatis, nigricantibus, carinâ acutâ, virenti; fœmineæ tres aut quatuor, rarissimè quinque, sparsæ, cylindricæ, erectæ, inferiores remotissimæ, longiùs pedunculatæ, atque sæpiùs basi compositæ seu ramosæ, quandoque omnes supernè masculæ. *Glumæ* fœminearum ovatæ, nigræ, mucronulatæ, carinâ virenti, glabrâ, mucronulo scabro. *Fructus* glumis longiores, ovati, vix rostrati, glabri, nitidi; intùs apiceque sanguineo-fusci; extùs pallidi, nervis duobus lateralibus viridibus præcipuè conspicuis. *Semen* acutè triquetrum, albidum.

This

This species appears to have been confounded with *C. distans*; and from Lightfoot's description of the green angles of the fruit, I presume it to have been what he intended under that name. It is considerably larger than the real *distans*, the spikes black intermixed with green rather than yellowish, and the female ones often branched or compounded at their base. Its most essential and decisive character however consists in the two strong deep-green nerves or ribs which run along each side of the fruit externally near the edge. The arillus is also broader and more compressed than in *C. distans*.

3. *CAREX tomentosa.*

Downy-fruited Carex.

C. vaginis brevissimis, spicis fœmineis subsessilibus cylindræis obtusis, glumis ellipticis acutis, fructibus tomentosis.

Carex tomentosa. *Linn. Mant.* 123. *Leers.* 200. *t.* 15. *f.* 7. *Willden. Car. Berol.* 24. *Dicks. Dr. Pl.* 43.

In pratis rariùs. Fl. Junio.

In meadows near Merston Measey, Wiltshire. *Mr. Teesdale.*

Radix repens. *Culmus* pedalis, erectus, nudus, acutè triqueter, angulis supernè scabris. *Folia* culmo breviora, erecta, plana, lætè viridia, utrinque margineque scabra. *Bractææ* foliaceæ, erecto-patentes, culmum vix superantes, vaginâ brevissimâ, aut ferè nullâ. *Spica* mascula lanceolata, obtusiuscula, glumis lanceolatis, ferrugineo-fuscis, carinâ virenti, superioribus quandoque mucronulatis; fœmineæ plerumque duæ, parùm remotæ, brevissimè pedunculatæ, cylindrææ, obtusæ, longitudine variæ, glumis elliptico-ovatis,

vix

vix mucronulatis, ferrugineo-fuscis, carinâ latè virenti. *Fructus* longitudine circitèr glumarum, densè imbricati, subrotundi, parùm compressi, vix triquetri, virides, tomento densissimò, brevi, albido, demùm aureo, undique vestiti. *Semen* albidum, obsolete triquetrum.

Dr. Goodenough has shown that the *C. tomentosa* of Lightfoot and Hudson is the *filiformis* of Linnæus. I have now the pleasure of giving the real *tomentosa* a place in the *Flora Britannica*, on the authority of wild specimens gathered in Wiltshire last summer, by my friend Mr. Teesdale, F.L.S. Those in Mr. Dickson's *Dried Plants*, n. 43, were all sent from Switzerland. It is most akin to *præcox* and *pilulifera*, (both which have the fruit in some degree pubescent,) but is a much larger species, and if the specific character be attended to, cannot be confounded with any other. The red *vaginæ* of the radical leaves, as in *C. digitata*, are very striking at first sight.

**** *Spicis sexu distinctis : masculis pluribus.*

4. CAREX *Micheliana*.

Blunt-fruited Black Carex.

C. spicis erectis cylindricis : fœmineis pedunculatis, glumis omnibus obtusis muticis, fructibus obovatis obtusissimis.

Cyperoides foliis caryophylleis, caule exquisitè triangulari, spicis habitioribus, squamis curtis obtusè mucronatis, capsulis turbinatis brevibus confertis. Mich. Gen. 62. t. 32. f. 12.

In aquosis. Fl. Maio?

Near Aberdeen. *Prof. Beattie.*

Culmu

Culmus erectus, pedalis aut sesquipedalis, triqueter, striatus, vix scaber. *Folia* erecta, acuminata, marginibus aspera, carinâ leviusculâ. *Bractææ* foliaceæ, erectæ, culmum superantes, haud vaginatae, basi auriculatæ, auriculis magnis, rotundatis, connatis, fuscis, apice pallidis. *Spicæ* cylindricæ, obtusiusculæ, erectæ; masculæ tres aut quatuor, subsessiles, graciles, glumis obtusissimis, muticis, glauco-fuscis, margine tenui, scarioso, niveo; fœminæ duæ, longiùs pedunculatæ, crassiores, superior apicè mascula, inferior basi interdùm composita, glumis ellipticis, obtusissimis, muticis, fuscis, margine scarioso, albo, carinâ flavescente, obtusâ. *Stigmata* tria. *Fructus* glumis multò breviores, obovato-triquetri, dilatati, ferè enerves, glabri, virescentes, apice obtusissimi, indivisi. *Semen* triquetrum, breve, fuscum, angulis pallidis.

I cannot but confess that it was with extraordinary pleasure I detected a specimen of this Carex among many supposed varieties of *recurva* communicated by Professor Beattie; for I immediately perceived its striking agreement with that long-doubtful figure of Micheli, *tab. 32. f. 12*, which has been sometimes referred to *acuta*, sometimes to *striata*, and hitherto found to agree well with no known species. As I believe no one but Micheli has described or distinguished this plant, I have given it his name. His definition above-quoted will be found precisely to accord with it, and I trust my specific character and description will prevent its being mistaken in future. It is most allied to *C. recurva*, (which sometimes varies with numerous male spikes,) but the perfectly smooth fruit, shorter than the glumes, and rather compressed, by no means gibbous, clearly distinguishes *C. Micheliana*; not to mention its greater size, and erect female spikes, the lowermost of which is liable to be branched at the base, as in *C. binervis*.

5. CAREX *lævigata*.

Smooth-stalked Beaked Carex.

C. spicis cylindricis: fœmineis pedunculatis, vaginis longissimis, glumis acuminatis, fructibus triquetris rostratis bifurcis.

In paludibus. Fl. Maio.

In a marsh near Glasgow, 1793. Mr. J. Mackay. Marshes near Aberdeen. Professor Beattie.

Radix fibrosa. *Culmus* erectus, 2—4-pedalis, triquetus, lævis, infernè foliosus. *Folia* erecta, latiuscula, lætè viridia, lævia, longissimè vaginata; superiora margine aspera. *Bractææ* foliaceæ, erectæ, culmum superantes, acuminatæ, acumine aspero, vaginis longissimis, pedunculo tamen brevioribus, supremis quandoque brevissimis et ferè nullis. *Spicæ* cylindræ, elongatæ, acutæ, graciles, erectæ; masculæ sæpiùs duæ, glumis lanceolatis acutis, frequentius mucronulatis; fœminæ duæ vel tres, longissimè pedunculatæ, pedunculis capillaribus, læviusculis, glumis lanceolatis, mucronulatis, ferrugineis, dorso viridibus, mucrone scabro. *Stigmata* tria. *Fructus* glumis longiores, lanceolato-triquetri, erecto-patentes, nervosi, haud inflati, virides, glabri, in rostrum attenuati compressum, apice profundè bifurcum. *Semen* fructum implens, triquetrum, breve, fuscum, pedicellatum.

I cannot refer this to any species already described. For some time I was in danger of confounding it with *C. vesicaria* in a young state, but the repeated admonitions of Mr. Mackay warned me. Having examined it in various states, I have no doubt remaining.

Its

Its long *vaginæ*, and the fruit being not inflated but filled with the large seed, distinguish it from *vesicaria* and *ampullacea*. It agrees in many particulars with *sylvatica* and *strigosa*, but differs in having more than one male spike, as well as much thicker and denser female ones.

I know of no figure of this species, nor of *C. binervis*; but as I hope to procure fresh specimens for publication in *English Botany*, I decline offering any delineation of dried ones. A figure of a *Carex*, in order to be useful, should exhibit the fructification in various states, and express particularly the form, surface, and nerves of the *arillus*, and the shape of the seed.